

Bachelor thesis by Wolf Munder, RWTH Aachen

## **Organic contaminants in coastal sediments of Hainan, China**

### **Abstract**

In the course of this thesis, a non-target screening of six surface sediment samples was performed. The coastal sediments were taken in Bamen Bay and its tributaries, which is located on Hainan Island, China. A total of 26 organic compounds with potential environmentally endangering characteristics were identified. Of those substances 16 were quantified. Against all perceptions of China as a country with low environmental protection regulations, all the concentrations were exceptionally low as compared to other study areas. The highest measured concentration was 30 ng/g, yet most of the substances were detected at a level lower than 5 ng/g. No compounds originating from industrial or agricultural sources could be found. The main pollutants were polycyclic aromatic compounds (PACs), which originated from petrogenic sources as well as compounds that suggest inputs of untreated municipal sewage.